



SAFER LEVEL CROSSING BY INTEGRATING AND
OPTIMIZING ROAD-RAIL INFRASTRUCTURE
MANAGEMENT AND DESIGN

SAFER-LC Mid-Term Conference, Madrid, 10 October 2018

Overview

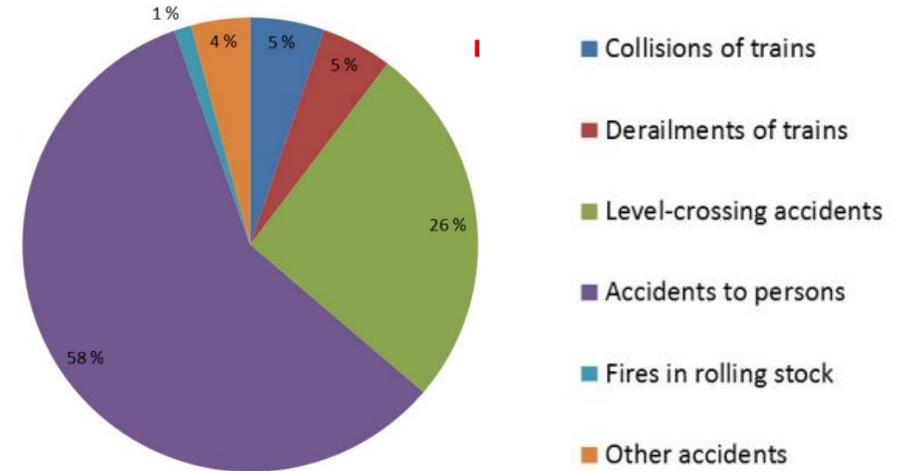
Marie-Hélène Bonneau

This project has received funding from the European Union's
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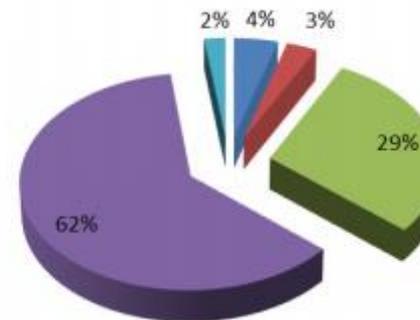


Background

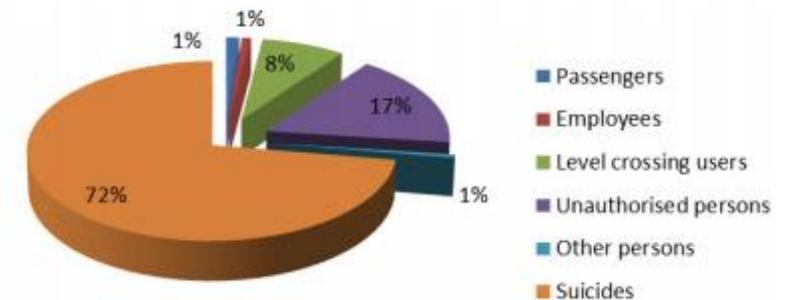
▲ Breakdown of significant accidents (2012-2014) – ERA Figures



▲ Relative share of victims per category of persons (2012-2014)- ERA Figures



Fatalities on railways disregarding railway suicides



Fatalities on railways including railway suicides

Objectives

- ▲ Improve safety and minimize risks at and around level crossings (LCs)
 - by developing innovative solutions and tools to detect as early as possible potentially dangerous situations leading to collisions at LCs and to prevent incidents at level crossing
- ▲ Focus both on technical solutions and on human processes
 - to adapt infrastructure design to end-users
 - to enhance coordination and cooperation between different stakeholders from different transportation modes.
- ▲ Develop a toolbox which will integrate all the project results and solutions to help both rail and road managers to improve safety at level crossings.

Key facts

- ▲ Framework : H2020 Call 2016-2017 Mobility for Growth
 - Topic: MG-3.4-2016 : Transport infrastructure innovation to increase the transport system safety at modal and intermodal level (including nodes and interchanges)
- ▲ Project submitted in September 2016 and selected in January 2017
- ▲ Starting date
 - 1st May 2017 for 3 years
- ▲ Budget
 - 4 888 927 €
- ▲ Total effort
 - 487,75 MM



Consortium

CONSORTIUM

COORDINATOR: 1-UIC - International Union of Railways

2-VTT - Technical Research Centre of Finland Ltd

3-NTNU - Norwegian University of Science and Technology

4-IFSTTAR - French institute of science and technology for transport, development and networks

5-FFE - Spanish Railways Foundation

6-CERTH-HIT - Centre for Research and Technology Hellas - Hellenic Institute of Transport

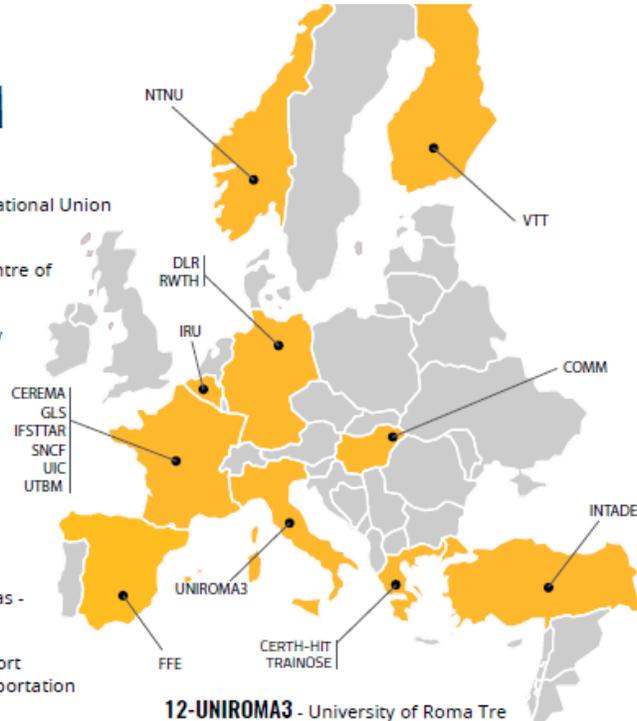
7-TRAINOSE - Trainose Transport - Passenger and Freight Transportation Services SA

8-INTADER - Intermodal Transportation and Logistics Research Association

9-CEREMA - Centre for Studies and Expertise on Risks, Environment, Mobility, and Urban and Country planning

10-GLS - Geoloc Systems

11-RWTH - Rheinisch-Westfaelische Technische Hochschule Aachen University



12-UNIROMA3 - University of Roma Tre

13-COMM - Commsignia Ltd

14-IRU - International Road Transport Union - Projects ASBL

15-SNCF - French Railways

16-DLR - German Aerospace Center - Institute of transportation Systems

17-UTBM - University of Technology of Belfort-Montbéliard

▲ Coordinator : UIC

▲ 17 partners

▲ 8 European Union countries

▲ 2 associate countries

Approach

- ▲ Analysis of LC safety systems and definition of needs and requirements of the rail and road users for safer level crossings
- ▲ Development of innovative measures
 - ▲ Human centered low cost measures
 - ▲ Technical solutions
- ▲ Field-test and evaluation of the measures
- ▲ Elaboration of recommendations and guidelines
- ▲ Collection of all results in a toolbox



SAFER-LC Mid term conference (1/2)

Morning session

SAFER-LC Project achievements:

- Human Factor at Level Crossings (*WP2*)

SAFER-LC on-going and Next steps

- Technical solutions for Level Crossings (*WP3*)
- Lab tests and Field implementation (*WP4*)

Spanish experience with Level Crossings

- Evolution of automatic protection systems in railways level crossings - ADIF
- Level crossing protection integration into connected car technologies – INSPIDE/DGT

SAFER-LC Mid term conference (1/2)

Afternoon session

National experiences

- Czech Republic, CDV
- Croatia, FPZ and HZ
- The Netherlands, PRORAIL

Other related projects

- Safe Strip EU project
- Proof of Concept to enhance safety LC in Canada - UIC